



[6450-01-P]

## DEPARTMENT OF ENERGY

### **Record of Decision and Floodplain Statement of Findings for the Cheniere Marketing, LLC and Corpus Christi Liquefaction, LLC Application to Export Liquefied Natural Gas to Non-Free Trade Agreement Countries**

**AGENCY:** Office of Fossil Energy, DOE.

**ACTION:** Record of Decision.

**SUMMARY:** The U.S. Department of Energy (“DOE”) announces its decision in FE Docket No. 12-97-LNG to issue DOE/FE Order No. 3638, granting long-term, multi-contract authorization for Cheniere Marketing, LLC and Corpus Christi Liquefaction, LLC (collectively “CMI”) to engage in export of domestically produced liquefied natural gas (“LNG”) in an amount up to 782 million million Btu (million MMBtu) per year, which is equivalent to approximately 767 billion cubic feet (“Bcf”) of natural gas per year, for a 20-year period commencing the earlier of the date of first export or seven-years from the date of issuance of the authorization requested. CMI is seeking authorization to export LNG from the proposed Corpus Christi Liquefaction Project (“Liquefaction Project”) near Corpus Christi, Texas, to any nation with which the United States has not entered into a free trade agreement (“FTA”) that requires national treatment for trade in natural gas (non-FTA countries). Order No. 3638 is issued under section 3 of the Natural Gas Act (“NGA”) and 10 CFR Part 590 of the DOE regulations. DOE participated as a cooperating agency with the Federal Energy Regulatory Commission (“FERC”) in preparing an environmental impact statement (“EIS”) analyzing the potential environmental

impacts of the proposed Liquefaction Project and associated pipeline that, if constructed, will support the export authorization sought from DOE's Office of Fossil Energy ("DOE/FE").

**ADDRESSES:**

The EIS and this Record of Decision ("ROD") are available on DOE's National Environmental Policy Act ("NEPA") website at <http://energy.gov/nepa/nepa-documents>. Order No. 3638 is available on DOE/FE's website at <http://energy.gov/fe/downloads/listing-doefe-authorizations-issued-2015>. For additional information about the docket in these proceedings, contact Larine Moore, U.S. Department of Energy, Office of Natural Gas Regulatory Activities, Office of Fossil Energy, Room 3E-042, 1000 Independence Avenue, SW, Washington, DC 20585.

**FOR FURTHER INFORMATION CONTACT:**

To obtain additional information about the project, the EIS, or the ROD, contact Mr. John Anderson, U.S. Department of Energy, Office of Oil & Gas Global Security & Supply, Office of Oil and Natural Gas, Office of Fossil Energy, Room 3E-042, 1000 Independence Avenue, SW, Washington, DC 20585, (202) 586-5600; or Mr. Edward LeDuc, U.S. Department of Energy, Office of the Assistant General Counsel for Environment, 1000 Independence Avenue, SW, Washington, DC 20585, (202) 586-4007.

**SUPPLEMENTARY INFORMATION:**

DOE prepared this ROD and Floodplain Statement of Findings pursuant to the National Environmental Policy Act of 1969 (42 United States Code [U.S.C.] 4321, et seq.), and in compliance with the Council on Environmental Quality ("CEQ") implementing regulations for NEPA (40 Code of Federal Regulations [CFR] Parts 1500 through 1508), DOE's implementing

procedures for NEPA (10 CFR Part 1021), and DOE's "Compliance with Floodplain and Wetland Environmental Review Requirements" (10 CFR Part 1022).

## **Background**

Cheniere Marketing, LLC, a Delaware limited liability company with its principal place of business in Houston, Texas, is affiliated with Corpus Christi Liquefaction, LLC (Cheniere Marketing, LLC's co-Applicant in this proceeding) and Cheniere Corpus Christi Pipeline, L.P. ("CCP"), the developers of the Corpus Christi LNG Project ("Corpus Christi LNG Project" or "Project" collectively refers to the Liquefaction Project and the Cheniere Pipeline). Cheniere Marketing, LLC is an indirect subsidiary of Cheniere Energy, Inc., a Delaware corporation with its primary place of business in Houston, Texas. Cheniere Energy, Inc. is a developer of LNG terminals and natural gas pipelines on the Gulf Coast, including the Corpus Christi LNG Project.

Cheniere Marketing, LLC filed an application ("Application") with DOE/FE on August 31, 2012, seeking long-term, multi-contract authorization to export to non-FTA countries up to 782 million MMBtu per year of LNG, equivalent to approximately 767 Bcf per year of natural gas, for a period of 22 years beginning on the earlier of the date of first export or eight years from the date the authorization is granted by DOE/FE. On October 10, 2012, Cheniere Marketing, LLC clarified that it is requesting authorization to export LNG both on its own behalf and as agent for other parties who hold title to the LNG at the point of export. On August 15, 2014, Cheniere Marketing, LLC amended its Application to include Corpus Christi Liquefaction, LLC as an additional applicant.

The Application was filed in conjunction with the Liquefaction Project being developed by Corpus Christi Liquefaction, LLC and Cheniere Corpus Christi Pipeline, L.P. at the site of the

previously authorized import terminal and associated pipeline in San Patricia and Nueces Counties Texas.<sup>1</sup> Concurrent with the Application, Corpus Christi Liquefaction, LLC filed an application with FERC for authorization pursuant to Section 3(a) of the NGA<sup>2</sup> to site, construct and operate the Liquefaction Project. In addition, Cheniere Corpus Christi Pipeline, L.P. filed an application with the FERC pursuant to Section 7(c) of the NGA to construct, own, and operate the Cheniere Pipeline (“Pipeline”) to connect the Liquefaction Project to interstate and intrastate natural gas supplies and markets.

On August 31, 2012, in Docket No. 12-99-LNG, Cheniere Marketing, LLC filed with DOE/FE a separate application for long-term multi-contract authorization to engage in the export of LNG in an amount up to 782 million MMBtu per year, to any nation with which the United States has or in the future will have an FTA that requires national treatment for trade in natural gas; that has developed, or in the future develops, the capacity to import LNG; and with which trade is not prohibited by U.S. law or policy. On October 16, 2012, DOE/FE Order No. 3164 was issued in FE Docket No 12-99-LNG granting long-term export authorization to FTA countries from the Project.<sup>3</sup>

## **Project Description**

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<sup>1</sup> The CCL Project is being developed at the same general locations proposed for the previously authorized Corpus Christi LNG L.P. import terminal and associated pipeline. *See Corpus Christi LNG L.P. and Cheniere Corpus Christi Pipeline Company, Order Granting Authority Under Section 3 of the Natural Gas Act and Issuing Certificates*, 111 FERC ¶ 61,081 (2005). Since the facilities were never constructed, the Commission vacated Corpus Christi LNG, L.P.’s and Corpus Christi Pipeline Company’s authorizations to construct the proposed LNG facility and associated pipeline. *Corpus Christi LNG, L.P.*, 139 FERC ¶ 61,195 (2012).

<sup>2</sup> The authority to regulate the imports and exports of natural gas, including liquefied natural gas, under section 3 of the NGA (15 U.S.C. § 717b) has been delegated to the Assistant Secretary for FE in Redelegation Order No. 00-006.02 issued on November 17, 2014.

<sup>3</sup> *Cheniere Marketing, LLC, Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Corpus Christi Liquefaction Project to Free Trade Agreement Nations*, DOE/FE Order No. 3164, October 16, 2012 (FE Docket No 12-99-LNG).

The Liquefaction Project will be located on a 991-acre site located along the northern shore of the La Quinta Channel north and east of the City of Corpus Christi, Texas and will include three ConocoPhillips Optimized Cascade<sup>SM</sup> LNG trains, each capable of liquefying approximately 700 million standard cubic feet (MMcf) per day of natural gas. Natural gas will be liquefied into LNG and stored in three 160,000 cubic meters LNG storage tanks, each equipped with five in-tank well columns and safety and monitoring systems. The Liquefaction Project will also include two trains of ambient air vaporizers, each with an average vaporization capacity of approximately 200 MMcf per day of natural gas, and marine terminal facilities with two LNG carrier berths. The Pipeline will include an approximately 23-mile-long, 48-inch-diameter pipeline and two compressor stations to be located wholly within San Patricio County, Texas. The Pipeline will function to transport domestic natural gas to the Liquefaction Project for liquefaction and export, as well as to transport regasified imported LNG from the LNG terminal to interconnections with the existing pipeline systems.

### **The EIS Process**

In accordance with NEPA, FERC issued a draft EIS for the proposed Corpus Christi LNG Project on June 13, 2014. The notice of availability (“NOA”) for the draft EIS was published in the Federal Register on June 20, 2014 (79 FR 35344). The NOA included notice of a public comment meeting on July 15, 2014, in Portland, Texas. The NOA also provided summary information regarding the draft EIS. Copies of the draft EIS were also sent to agencies, elected officials, media organizations, Native American Tribes, private landowners, and other interested parties.

Issues raised by commenters included concerns regarding: air pollution (including greenhouse gas emissions and mitigation and compliance with the National Ambient Air Quality

Standards), construction dust and noise vibrations, land use changes, impacts of water discharges on aquatic species (including impacts to an essential fish habitat (“EFH”)), light pollution, visual impacts, public safety and lack of an emergency response plan, water use and CMI’s source of water, impacts on property values, expanding the scope of the cumulative impact analysis and alternatives analysis, recreational impacts and workforce availability.<sup>4</sup>

The final EIS was published on October 8, 2014, and recommended that the FERC approve the Corpus Christi LNG Project. It concluded that the Project will result in some adverse environmental impacts; however, those impacts would not be significant if the Project is constructed and operated in accordance with applicable laws and regulations.

Accordingly FERC issued an Order<sup>5</sup> granting authorization to the Project on December 30, 2014, subject to the 104 environmental conditions contained in Appendix A of that Order.

In accordance with 40 CFR 1506.3, after an independent review of the FERC’s final EIS, DOE adopted the EIS and the U.S. Environmental Protection Agency published a notice of that adoption in the Federal Register on April 24, 2015 (80 FR 22992).

### **Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States (“Addendum”)**

On June 4, 2014, DOE/FE published the Draft Addendum for public comment (79 FR 32258). Although not required by NEPA, DOE/FE prepared the Addendum in an effort to be responsive to the public and to provide the best information available on a subject that had been raised by commenters. The Addendum is a review of existing literature and was intended to

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<sup>4</sup> See Final EIS at 1-12, *Table 1.4-1 Issues Identified and Comments Received During the Scoping Process for the Corpus Christi LNG Project*.

<sup>5</sup> *Corpus Christi Liquefaction, LLC and Cheniere Corpus Christi Pipeline, L.P.*, Order Granting Authorization Under Section 3 of the Natural Gas Act, 149 FERC ¶ 61,283 (December 30, 2014).

provide information only on the resource areas potentially impacted by unconventional gas production.

The 45-day comment period on the Draft Addendum closed on July 21, 2014. DOE/FE received 40,745 comments in 18 separate submissions, and considered those comments in issuing the Addendum on August 15, 2014. DOE/FE provided a summary of the comments received and responses to substantive comments in Appendix B of the Addendum. DOE/FE has incorporated the Draft Addendum, comments, and final Addendum into the record in its CMI proceeding.

## **Alternatives**

The EIS conducted an alternatives analysis for the Liquefaction Project that could achieve the Project objectives. The range of alternatives analyzed included the No-Action Alternative, system alternatives, alternative Liquefaction Project sites, alternative Pipeline routes, and alternative compressor station sites. Alternatives were evaluated and compared to the Liquefaction Project to determine if these alternatives were environmentally preferable.

While the No-Action Alternative would avoid the potential adverse and beneficial environmental impacts identified in the EIS, adoption of this alternative would preclude meeting the Project objectives. Other LNG export/import projects could also be developed elsewhere in the Gulf Coast region or in other areas of the United States, but would likely result in similar or potentially greater environmental impacts than those of the proposed Project. The No-Action Alternative could also require potential end users to make other arrangements to obtain natural gas service, or continue the use of alternative fossil fuel energy sources (such as coal or fuel oil) to compensate for the reduced availability of natural gas that would otherwise be supplied by the Corpus Christi LNG Project.

The EIS evaluated 12 system alternatives for the Project, including 6 operating LNG import terminals in the Gulf of Mexico area, and 6 proposed or planned export projects along the Gulf Coast. All of the systems were eliminated from further consideration for reasons that include the need for substantial construction beyond that currently proposed, production volume limitations, in-service dates scheduled significantly beyond the Project schedule, and potential environmental impacts that were considered comparable to or greater than those of the Project.

The EIS also evaluated three alternative Liquefaction Project sites, two in proximity to the proposed site and one near Brownsville, Texas. Construction of the terminal at each of the alternative sites would have comparable or greater environmental impacts when compared to the proposed terminal site; therefore, none of the three sites evaluated were determined to be environmentally preferable.

Approximately 86 percent of the Pipeline would be co-located, overlap, or parallel existing rights-of-way, so many types of environmental impacts have already been reduced or avoided. While two route alternatives were evaluated, the EIS did not identify any site-specific environmental concerns along the proposed route that would make the alternative pipeline routes preferable.

The EIS evaluated a total of five alternative sites for the proposed compressor stations but determined that none of these sites were environmentally preferable to the proposed sites.

### **Environmentally Preferred Alternative**

When compared against the other action alternatives assessed in the EIS, as discussed above, the Corpus Christi LNG Project is the environmentally preferred alternative. While the No-Action Alternative would avoid the environmental impacts identified in the EIS, adoption of this alternative would not meet the Project objectives.



## **Decision**

DOE/FE has decided to issue Order No. 3638 to grant the long-term, multi-contract authorization for CMI to engage in exports of domestically produced liquefied natural gas in an amount up to 767 Bcf per year for a 20-year period, commencing the earlier of the date of first export or seven-years from the date of issuance of the authorization requested. The authorization is to export LNG from the proposed Corpus Christi Liquefaction Project to any nation with which the United States does not now or in the future have an FTA requiring the national treatment for trade in natural gas, that has, or in the future develops, the capacity to import LNG and with which trade is not prohibited by U.S. law or policy.

Concurrently with this Record of Decision, DOE/FE is issuing Order No. 3638 in which it finds that the granting of the requested authorization has not been shown to be inconsistent with the public interest, and that the Application should be granted subject to compliance with the terms and conditions set forth in Order No. 3638, including the environmental conditions adopted in the FERC Order at Appendix A. Additionally, the authorization is conditioned on CMI's compliance with any other preventative and mitigative measures imposed by other Federal or state agencies.

## **Basis of Decision**

DOE/FE's decision is based upon the analysis of potential environmental impacts presented in the EIS, and DOE/FE's determination in Order No. 3638 that the opponents of the Application have failed to overcome the statutory presumption that the proposed export authorization is not inconsistent with the public interest. Although not required by NEPA, DOE/FE also considered the Addendum, which summarizes available information on potential

upstream impacts associated with unconventional natural gas activities, such as hydraulic fracturing.

## **Mitigation**

As a condition of its decision to issue Order No. 3638 authorizing CMI to export LNG to non-FTA countries, DOE/FE is imposing requirements that will avoid or minimize the environmental impacts of the project. These conditions include the environmental conditions adopted in the FERC Order at Appendix A. Mitigation measures beyond those included in DOE/FE Order No. 3638 that are enforceable by other Federal and state agencies are additional conditions of Order No. 3638. With these conditions, DOE/FE has determined that all practicable means to avoid or minimize environmental harm from the project have been adopted.

## **Floodplain Statement of Findings**

DOE prepared this Floodplain Statement of Findings in accordance with DOE's regulations entitled "Compliance with Floodplain and Wetland Environmental Review Requirements" (10 CFR Part 1022). The required floodplain and wetland assessment was conducted during development and preparation of the EIS.<sup>6</sup> No alternative Liquefaction Project sites were evaluated outside of a floodplain because, as discussed in section 4.1.1.5 of the final EIS, the facilities would be placed above predicted storm surge elevations, and the site is necessarily tied to marine/port locations. Similarly, no Pipeline route alternatives outside of floodplains were evaluated because, as discussed in section 4.1.2.4 of the Final EIS, Cheniere Corpus Christi Pipeline, L.P. has proposed to implement acceptable mitigation measures at

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<sup>6</sup> See Final EIS at Section 3.0. Table 3.1-1 and Section 3.2.3.3 were revised to include information regarding the proximity of alternative Terminal sites with respect to floodplains.

waterbody crossings and areas subject to flooding to compensate for negative buoyancy. DOE determined that the placement of some project components within floodplains would be unavoidable. However, the current design for the project minimizes floodplain impacts to the extent practicable.

Issued in Washington, D.C., on May 12, 2015.

**Christopher A. Smith,**  
Assistant Secretary,  
Office of Fossil Energy.

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